

S.C.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/773,750	FUJIWARA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ling-Siu Choi	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment after Final filed 08/19/2004.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

**DETAILED ACTION**

1. This Office Action is in response to the Amendment after Final filed August 19, 2004. Claims 23-24 were canceled and claims 1-22 are now pending.

***Allowable Subject Matter***

2. Claims 1-22 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest reference: Satoh et al. (US 6,187,883 B1) and Sato et al. (JP 10-212319-A).

The present invention relates to a process to prepare a solid catalyst component (1) for  $\alpha$ -olefin polymerization, the process comprising the steps of

1	<b>Reduced</b> $R^2[(O-Ti(X^2)_2]_aX^2$ (a = 1 to 20)	with an organomagnesium compound in the presence of an organosilicon compound (Si-O) to obtain a solid product
2	contacting the solid product with	<b>halogeno compound</b> of the Group 14 element
		at least one [electron donor compound (E1) and organic acid halide]
		compound having Ti-halogen bond to obtain the solid catalyst component

(summary of claim 1)

Art Unit: 1713

Sato et al. disclose a catalyst comprising the catalyst component, an organoaluminum compound, and an electron-donor compound, wherein the catalyst component is obtained by a process comprising reducing a titanium compound with an organomagnesium compound in the presence of an organosilicon compound and an ester to obtain a solid product, then treating the solid product with (a) a mixture of titanium tetrachloride and an ester, (b) an organic acid halide, and (c) a mixture of titanium tetrachloride and an ether optionally containing an ester, a **halogenated hydrocarbon such as dichloroethane or trichloroethylene being preferably used as a solvent for mixtures (a) or (b)** (abstract; col. 8, lines 54-67; claim 1 and 7). However, Sato et al. do not teach or fairly suggest a process comprising a step of using a halogeno compound of a Group 14 element selected from the group consisting of Si, Ge, Sn, and Pb.

Sato et al. disclose a catalyst comprising (A) a catalyst component, (B) an organoaluminum, and (c) an electron donor, wherein the catalyst component is obtained by the steps of (a) reducing an titanium compound of  $Ti(OR^1)_aX_{4-a}$  by an organic magnesium compound in the presence of an organosilicon compound having Si-O bond and an ester to obtain a solid product, (b) treating the solid product with a mixture of an ether compound and titanium tetrachloride, then an organic acid halide compound, and finally a mixture of an ether, titanium tetrachloride, and an ether compound (claim 1). However, Sato et al. do not teach or fairly suggest a process comprising a step of using a halogeno compound of a Group 14 element selected from the group consisting of Si, Ge, Sn, and Pb.

In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the

Art Unit: 1713

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

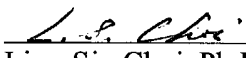
***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

September 15, 2004

**LING-SUI CHOI  
PRIMARY EXAMINER**

  
Ling-Siu Choi, Ph.D.  
Primary Examiner  
Art unit: 1713